

CLAIMS

1. A method of regulating Toll-like receptor signaling in an animal, or in one or more cells, or tissues or organs derived therefrom, including the step of administering Cpn10 to the animal, cells, tissues or organs, to thereby regulate
5 agonist-induced Toll-like receptor signaling.
2. The method of Claim 1, wherein the Toll-like receptor is selected from the group consisting of TLR2 and TLR4.
3. The method of Claim 1, wherein the agonist is, or is derived from, a pathogen.
- 10 4. The method of Claim 3, wherein the agonist is selected from LPS, or lipopeptide.
5. The method of Claim 1, wherein the animal is a mammal.
6. The method of Claim 6, wherein the mammal is a human.
7. A method of regulating immunomodulator secretion in an animal, or in
15 one or more cells, or tissues or organs derived therefrom, including the step of administering Cpn10, or a derivative of Cpn10, to the animal, cells, tissues or organs, to thereby regulate Toll-like receptor agonist-induced immunomodulator production and/or secretion.
8. The method of Claim 7, wherein the Toll-like receptor is selected from the
20 group consisting of TLR2 and TLR4.
9. The method of Claim 7, wherein the agonist is, or is derived from, a pathogen.
10. The method of Claim 9, wherein the agonist is selected from LPS or a lipopeptide.
- 25 11. The method of Claim 7, wherein production and/or secretion of the immunomodulator is negatively regulated by Cpn10.
12. The method of Claim 11, wherein the immunomodulator is a pro-inflammatory cytokine or chemokine.
13. The method of Claim 12, wherein the pro-inflammatory cytokine is IL-6
30 or TNF α .
14. The method of Claim 1, wherein the pro-inflammatory chemokine is

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15. The method of Claim 7, wherein production and/or secretion of the immunomodulator is positively regulated by Cpn10.
16. The method of Claim 15, wherein the immunomodulator is an anti-inflammatory cytokine or chemokine.
17. The method of Claim 16, wherein the anti-inflammatory cytokine is IL-10 or TGF- β .
18. The method of Claim 7, wherein the animal is a mammal.
19. The method of Claim 18, wherein the mammal is a human.
20. A method of prophylactically or therapeutically treating a disease, disorder or condition responsive to regulation of Toll-like receptor signalling in an animal, said method including the step of administering Cpn10 to said animal to thereby regulate agonist-induced Toll-like receptor signaling in said animal.
21. The method of Claim 20, wherein the disease, disorder or condition is selected from the group consisting of acute or chronic inflammatory diseases such as septic shock, inflammatory bowel disease, arthritis, psoriasis, heart disease, atherosclerosis, chronic pulmonary disease, cachexia, multiple sclerosis, GVHD, transplantation and cancer.
22. The method of Claim 20, wherein the agonist is, or is derived from, a pathogen.
23. The method of Claim 20, wherein the animal is a mammal.
24. The method of Claim 23, wherein the mammal is a human.
25. A method of prophylactically or therapeutically treating a disease, disorder or condition responsive to regulation of Toll-like receptor induced immunomodulator production and/or secretion in an animal, said method including the step of administering Cpn10 to said animal to thereby regulate Toll-like receptor agonist-induced immunomodulator production and/or secretion in said animal.
26. The method of Claim 25, wherein the disease, disorder or condition is selected from the group consisting of acute or chronic inflammatory diseases such as septic shock, inflammatory bowel disease, arthritis, psoriasis, heart disease,

atherosclerosis, chronic pulmonary disease, cachexia, multiple sclerosis, GVHD, transplantation and cancer.

27. The method of Claim 25, wherein the agonist is, or is derived from, a pathogen.

5 28. The method of Claim 25, wherein the animal is a mammal.

29. The method of Claim 28, wherein the mammal is a human.

30. An isolated molecular complex comprising a Toll-like receptor, a Toll-like receptor agonist and Cpn10.

10 31. The isolated molecular complex of Claim 30, wherein the Toll-like receptor is selected from the group consisting of TLR2 and TLR4.

32. The isolated molecular complex of Claim 31, wherein Toll-like receptor is TLR4 and the agonist is LPS.

33. The isolated molecular complex of Claim 31, wherein the Toll-like receptor is TLR2 and the agonist is a lipopeptide

15 34. A method of producing, designing or screening a Cpn10 agonist, including the step of determining whether a candidate Cpn10 agonist mimics or augments Cpn10 regulation of Toll-like receptor signaling.

35. A method of producing, designing or screening a Cpn10 agonist, including the step of determining whether a candidate Cpn10 agonist mimics or augments
20 Cpn10 regulation of Toll-like receptor-inducible immunomodulator production and/or secretion.

36. The method of Claim 34 or Claim 35, wherein the Toll-like receptor is selected from the group consisting of TLR2 and TLR4.

25 37. A method of producing, designing or screening a Cpn10 antagonist, including the step of determining whether a candidate Cpn10 antagonist inhibits, reduces, suppresses or otherwise decreases Cpn10 regulation of Toll-like receptor signaling.

38. A method of producing, designing or screening a Cpn10 antagonist, including the step of determining whether a candidate Cpn10 antagonist inhibits,
30 reduces, suppresses or otherwise decreases Cpn10 regulation of Toll-like receptor-inducible immunomodulator production and/or secretion.

39. The method of Claim 37 or Claim 38, wherein the Toll-like receptor is

selected from the group consisting of TLR2 and TLR4.